

Western Wahoo

(*Euonymus occidentalis* Nuttall
ex Torrey)

in British Columbia

Report to:

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ABSTRACT

Euonymus occidentalis Nuttall ex Torrey or Western Wahoo was reported from an area in the upper Elaho River between Lava and Cesna creeks by the Western Canada Wilderness Committee in 1999. No evidence that this is the case has been found after one general field examination of the area and a second field examination at the site from where it was reported. Thus, there still is only one confirmed location of Western Wahoo in British Columbia. It is on the floodplain of the Tsolum River, near Courtenay, on Vancouver Island.

INTRODUCTION

Western Wahoo (*Euonymus occidentalis* Nuttall ex Torrey) was reported to be in the upper Elaho River area, Squamish Forest District. This report was made by the Western Canada Wilderness Committee (WCWC) in an August 2, 1999 news release through their web site. Partly, the committee stated: "Volunteers were very excited to find an extremely rare tree species (only one other known site in Canada), the Western Wahoo, on their first day of research." (Western Canada Wilderness Committee, 1999)

So far the only confirmed location of Western Wahoo (*Euonymus occidentalis* Nuttall ex Torrey) in British Columbia is near Courtenay, on Vancouver Island (Brayshaw, 1996), (Figure 1). The plant is on the floodplain of the Tsolum River on Crown land that is under fee-simple title. (Adolf Ceska, British Columbia Conservation Data Centre, personal communication).



Figure 1. Location (arrow) of *Euonymus occidentalis* or Western Wahoo in British Columbia (National Geographic Society,).

The extent of the distribution of the species in the United States is illustrated in Figure 2.



Figure 2. Distribution of *Euonymus occidentalis* or Western Wahoo in the United States (Moore, 1999).

DESCRIPTION OF SHRUB

Western Wahoo is a 2 to 5 metre tall deciduous shrub. It has opposite leaves that are ovate to lanceolate and approximately 5 cm long by 2 cm wide (Brayshaw, 1996), Figure 3.



Figure 3. *Western Wahoo, Euonymus occidentalis* (Simpson, 1999).

ABUNDANCE**United States**

Western Wahoo is widely distributed in California. Thus, it is not listed as rare or endangered there (CalFlora, 1999; The Resources Agency, 1999). It is S3, i.e. rare or uncommon, in Oregon, (The

Oregon Natural Heritage Program, 1999). The species is ranked as S1, i.e. critically imperiled because of extreme rarity, in Washington State by the Washington Natural Heritage Program (Washington Natural Heritage Program,).

British Columbia

Western Wahoo is ranked as S1 by the British Columbia Conservation Data Centre, Ministry of Environment, Lands and Parks (Douglas, 1998). This is because it has only been found in one location in the Province, as described earlier in this report.

The presence of Western Wahoo in the upper Elaho River valley would represent a surprising expansion of its range into a plant community and climatic regime that are very different from those of its known locations. However, a published report of a S1 species could not be discounted without a field investigation. This report describes the results of two trips to the upper Elaho River valley to find Western Wahoo.

OBJECTIVES

1. Determine if the shrub, *Euonymus occidentalis* or Western Wahoo, is growing in the upper Elaho area
2. If it is found, to describe the population, photograph it and sample a part for herbaria, provided a sample would not unduly effect the shrub(s).
3. Report and communicate the results.

METHODS

A preliminary survey of the general area from which the plant was reported was completed. Next, a field examination was done of the specific site of the species. This site was located on an aerial photograph by Andy Miller, who originally reported the presence of the species in the upper Elaho River valley. The site was examined and the shrubs growing there were sampled and preserved. This report was then prepared.

LOCATION OF AREA

The area is in Tree Farm License 38, held by International Forest Products Ltd. Western Wahoo was reported to be near mile 64 on the logging road to the upper reaches of the valley, between Lava and Cesna Creeks (Figure 4).



Figure 4. Location of site where *Ennymus occidentalis* or Western Wahoo was reported (arrow). The Elaho River runs from north to south in the western portion of the photo (30BCC94119 No. 004). Lava Creek is seen in the lower part of the photograph, Cesna Creek is in the upper part of the photograph.

RESULTS

The initial field examination of the general area where Western Wahoo was reported was done on August 12, 1999. The shrub was not found. A second field examination was carried out on October 8, 1999. The aerial photograph location, marked by Andy Miller, was

traversed. Western Wahoo was also not found at this site. The shrub species that were found are listed in Table 1. Most of these species

Table 1. Shrub Species List for the Area Reported to Contain Western Wahoo. Names follow (Pojar *et al.*, 1994).

Common Name of Species	Latin Name of Species
Alaskan Blueberry	<i>Vaccinium alaskaense</i>
Black Huckleberry	<i>Vaccinium membranaceum</i>
Current	<i>Ribes</i> sp*
Devil's Club	<i>Oplopanax horridus</i>
False Azalea	<i>Menziesia ferruginea</i>
Falsebox	<i>Pachistima myrsinites</i>
Highbush-cranberry	<i>Viburnum edule</i>
Kinnikinnick	<i>Arctostaphylos uva-ursi</i>
Oval-leaved Blueberry	<i>Vaccinium ovalifolium</i>
Red Elderberry	<i>Sambucus racemosa</i> ssp <i>pubens</i> var. <i>arborescens</i>
Red-osier Dogwood	<i>Cornus stolonifera</i>
Red Huckleberry	<i>Vaccinium parvifolium</i>
Saskatoon Berry	<i>Amelanchier alnifolia</i>
Sitka Alder	<i>Alnus crispa</i> ssp. <i>sinuata</i>
Sitka Mountain-ash	<i>Sorbus sitchensis</i>
Thimbleberry	<i>Rubus parviflorus</i>
Western Tea-berry	<i>Gaultheria ovatifolia</i> *
Utah Honeysuckle	<i>Lonicera utahensis</i>
Western Yew	<i>Taxus brevifolia</i>
Sitka Willow	<i>Salix sitchensis</i> *

•to be confirmed or identified to species at herbarium

were also found on the first general examination of the area. These shrubs are typical of those that are commonly found in the CWHms1 (Southern Moist Submaritime Coastal Western Hemlock biogeoclimatic variant).

DISCUSSION

Ideally, volunteers of the Western Canada Wilderness Committee would have photographed and sampled the plant they considered to be Western Wahoo as proof of its presence in the area. This was not done.

As the summer progressed it became evident that it would not be possible to have a representative of the WCWC sample and mark the location of the plant in the field before the winter. I asked one of the

volunteers, Andy Miller, who was listed as a contact in the press release referred to in the Introduction, to mark the location of the plant on a 1:20,000 colour aerial photograph. Andy Miller was able to do this because the location was in an opening in the forest below rock outcrops, which was distinctive on the aerial photograph. On the field examination it was not difficult for us to find this opening since it was along the WCWC trail past the area.

In the last month, International Forest Products Ltd. has built a logging road through part of the area identified on the aerial photograph by Andy Miller. It is unlikely that the logging road was built on the only location of the plant. This is because the habitat characteristics of the upper Elaho area are very different from those where the species has been documented in British Columbia, on a rich, moist, floodplain site (Dr. Adolf Ceska, Botanist, British Columbia Conservation Data Centre personal communication) and in the United States (e.g. references in Calflora, cited in the Introduction).

CONCLUSIONS

Western Wahoo (*Euonymus occidentalis* Nuttall ex Torrey) was not found in the upper Elaho River area. A road was recently built past the area from which the plant was reported but is not thought to have resulted in removal of the species. This is because the characteristics of area where it was reportedly seen (zonal sites and drier-than-zonal sites in the CWHms1) differs substantially from the known location of the species in British Columbia (a lower-elevation wetter and richer floodplain site) and the locations described in the United States.

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